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Dairy Herd Improvement Letter

APRIL - MAY 1972

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NATIONAL COOPERATIVE
DAIRY HERD IMPROVEMENT
PROGRAM

A dairy recordkeeping plan
for every herd

U.S. DEPT. OF AGRICULTURE
ANIMAL SCIENCE
RESEARCH DIVISION

MAY 13 1972

ANIMAL SCIENCE
RESEARCH DIVISION

Dairy Herd Improvement Letter
April-May 1972

DHIA PARTICIPATION REPORT, JANUARY 1, 1972 1/

The National Cooperative Dairy Herd Improvement Program is a composite of the Official DHI (including DHIR), Owner-Sampler, Weigh-a-Day-a-Month (WADAM), and other unofficial dairy recordkeeping plans.

On January 1, 1972, the program included 56,650 herds with 3,206,833 cows, which is 26.1 percent of the Nation's dairy cow population. The cows were in 1,247 associations with 2,186 supervisors. Official DHI included 33,197 herds and 2,244,685 cows for an average of 67.6 cows per herd. DHIR included 3,445 herds and 232,465 cows, averaging 67.5 cows per herd. Owner-Sampler included 21,345 herds and 805,555 cows for an average of 37.7 cows per herd. Similar figures for WADAM were 596 herds, 56,052 cows, and 94.0 cows per herd. The other unofficial plans included 1,512 herds and 100,541 cows for an average of 66.5 cows per herd.

The percentage of the Nation's cows enrolled in Official DHI was 18.3, up from 17.8 percent in 1971. DHIR enrolled 1.9 percent of the Nation's cows, the same percentage as in 1971. Owner-Sampler cows decreased from 6.7 to 6.6 percent of the Nation's cows in 1971, and WADAM increased from 0.4 to 0.5 percent. Enrollment in other unofficial plans comprised 0.8 percent of the Nation's cows, an increase of 0.1 percent from 1971.

Details of participation in the various recordkeeping plans are given in tables 4 through 8.

Table 1 is a listing of States that have State dairy herd improvement associations and those that hold membership in the National Dairy Herd Improvement Association (NDHIA),
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1/ Prepared by G. J. King, F. N. Dickinson, C. A. Rampendahl, J. J. Corbin, and A. H. Kienast from data supplied by the State Extension Dairyemen advising on the Dairy Herd Improvement Program in the States.

Inc. These are also shown on the map on page 5.

Establishing a State DHIA is important to the development and growth of sound dairy recordkeeping programs within a State. In 1971, one more State DHI Association was formed--in South Carolina. Thirty States were members of NDHIA, Inc., on January 1, 1972. Four of these--Delaware, Illinois, Louisiana, and South Dakota--have joined since January 1, 1971.

The numbers of counties, associations, and supervisors in the Program have also been included in table 1. The number of counties includes all those that have at least one testing program under the auspices of the National Cooperative Dairy Herd Improvement Program.

Table 2 lists the percentages of all milk cows included in all recordkeeping plans. The map on page 6 shows graphically the data in table 2. The data show Hawaii as the only State with more than 50 percent of the cows on test. Four States follow with between 40 and 49.9 percent of their cows on test; 14 States, between 30 and 39.9 percent of their cows on test; 15 States, between 20 and 29.9 percent of their cows on test; 14 States, between 10 and 19.9 percent of their cows on test; and 2 States still have less than 10 percent of their cows on test.

Table 3 summarizes the data for participation in each recordkeeping plan. Footnote 1 gives the titles of the unofficial plans other than Owner-Sampler and WADAM. The titles of these plans by States are listed in table 8. Table 3, footnote 4, lists 1,821 herds and 62,872 cows on unofficial recordkeeping plans not under the auspices of the National Cooperative Dairy Herd Improvement Program. Some of these plans are Vocational Agriculture, Basic Production and Management, Black Book (hand calculated), and private testing.

Figures for Official DHI in table 4 indicate that there are fewer herds and more cows on test than a year ago. Thus, average herd size increased by 2.3 cows. This increase--to 67.6 cows per herd--is more than double the herd size in 1955.

Table 5 lists herds and cows on DHIR. These are included in Official DHI as the various plans are tabulated, but are listed in table 5 to show relative numbers and percentages that DHIR recordkeeping comprises. Both the numbers of herds and cows decreased in 1971 over 1970.

The figures for Owner-Sampler recordkeeping detailed by State in table 6 show decreases in herds and cows from 1970.

The figures for WADAM recordkeeping presented in table 7 show that herds on test continued to decrease, but cows on test rose again by January 1, 1972. The cows per herd increased from 79.5 on January 1, 1971, to 94.0 January 1, 1972.

Table 8 includes the same details for participation in other unofficial plans as tables 4 through 7 do for Official DHI, DHIR, Owner-Sampler, and WADAM. The data show that there are more than twice as many herds and almost twice as many cows on other unofficial plans as on WADAM.

Table 9 shows percentages of herds and cows that are computer-processed. Recordkeeping for 32 States is now 100 percent computer-processed.

Table 10 is a history of Official DHI testing in the United States since 1940. Data for the years from its beginning in 1906 through 1939 are included in table 10 of the May 1970 Dairy Herd Improvement Letter, ARS 44-215. The given number of associations and supervisors are for the total National Cooperative Dairy Herd Improvement Program.

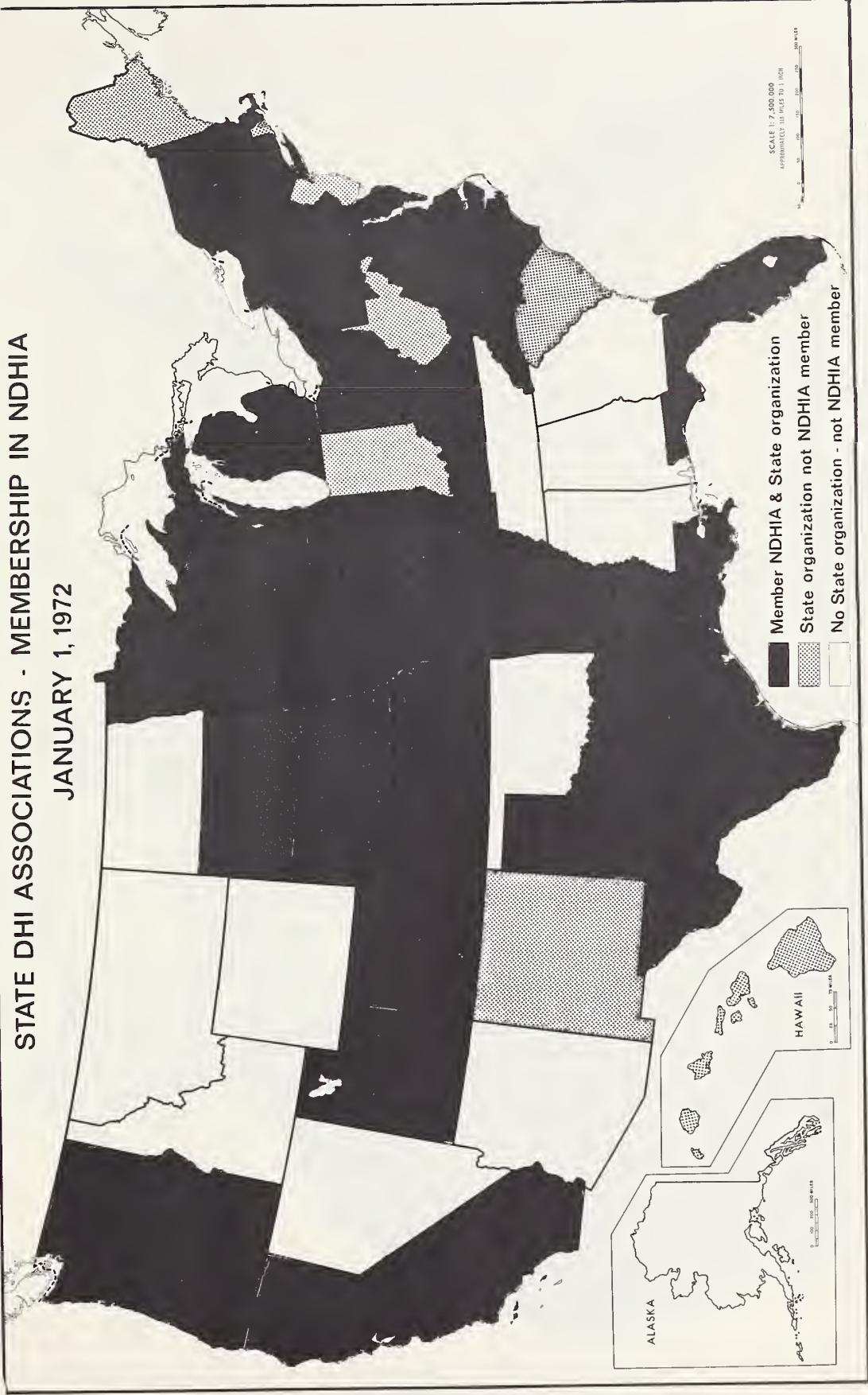
Table 11 is a history of the Owner-Sampler recordkeeping plan. It begins with 1956, when the first January 1 tabulation was made.

Table 12 is a history of WADAM and other unofficial recordkeeping plans since January 1, 1957, just after the beginning of WADAM testing.

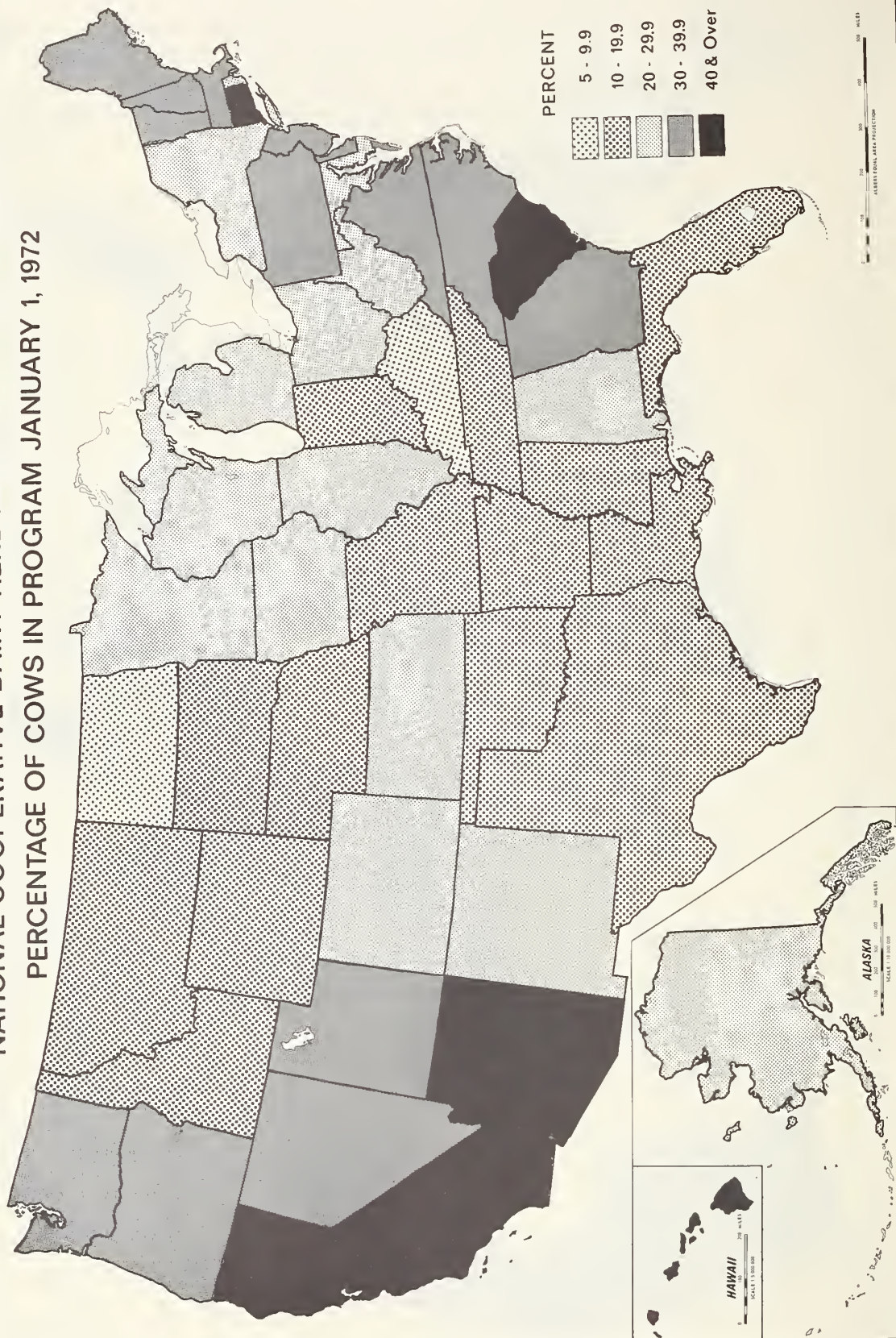
Table 13 is the listing of counties that have 40 percent or more of their dairy cows included in the National Cooperative Dairy Herd Improvement Program. The percentage of counties having 25 percent or more of their dairy cows on test is given in parentheses at the end of each State's listing.

A list of the Extension Dairywomen advising on the Dairy Herd Improvement Program in the States is given on the last page.

STATE DHI ASSOCIATIONS - MEMBERSHIP IN NDHIA JANUARY 1, 1972



NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM PERCENTAGE OF COWS IN PROGRAM JANUARY 1, 1972



AD-404.1

TABLE 1.--The National Cooperative Dairy Herd Improvement Program organization (January 1, 1972)

State	State DHIA organization	Member of NDHIA, Inc.	Counties that have at least one testing program	Associations	Supervisors
			No.	No.	No.
Alabama-----	No	No	53	21	20
Alaska-----	No	No	2	2	2
Arizona-----	No	No	5	4	8
Arkansas-----	Yes	Yes	27	14	20
California-----	Yes	Yes	41	27	115
Colorado-----	Yes	Yes	20	14	<u>1</u> /21
Connecticut-----	Yes	Yes	8	7	18
Delaware-----	Yes	Yes	3	3	3
Florida-----	Yes	Yes	44	11	15
Georgia-----	No	No	94	28	29
Hawaii-----	Yes	No	4	1	4
Idaho-----	No	No	29	27	29
Illinois-----	Yes	Yes	85	52	74
Indiana-----	Yes	No	89	47	60
Iowa-----	Yes	Yes	97	64	80
Kansas-----	Yes	Yes	87	57	63
Kentucky-----	Yes	Yes	70	36	38
Louisiana-----	Yes	Yes	37	26	23
Maine-----	Yes	No	16	13	26
Maryland-----	Yes	Yes	17	14	30
Massachusetts-----	Yes	Yes	11	8	21
Michigan-----	Yes	Yes	80	83	83
Minnesota-----	Yes	Yes	84	74	220
Mississippi-----	No	No	42	21	24
Missouri-----	Yes	Yes	81	37	49
Montana-----	No	No	11	6	7
Nebraska-----	Yes	Yes	<u>1</u> /60	31	36
Nevada-----	No	No	6	3	4
New Hampshire-----	Yes	Yes	9	9	<u>1</u> /15
New Jersey-----	Yes	No	<u>1</u> /10	5	17
New Mexico-----	Yes	No	9	3	7
New York-----	Yes	Yes	47	47	180
North Carolina-----	Yes	Yes	78	38	50
North Dakota-----	No	No	42	12	10
Ohio-----	Yes	Yes	80	69	125
Oklahoma-----	No	No	57	17	21
Oregon-----	Yes	Yes	25	13	16
Pennsylvania-----	Yes	Yes	65	59	165
Puerto Rico <u>1</u> /-----	Yes	No	33	1	5
Rhode Island-----	Yes	No	5	2	2
South Carolina-----	Yes	No	33	11	23
South Dakota-----	Yes	Yes	51	16	16
Tennessee-----	No	No	63	33	36
Texas-----	Yes	Yes	75	24	30
Utah-----	Yes	Yes	18	16	20
Vermont-----	Yes	Yes	<u>1</u> /14	27	50
Virginia-----	Yes	Yes	75	39	50
Washington-----	Yes	Yes	30	25	39
West Virginia-----	Yes	No	30	11	12
Wisconsin-----	Yes	Yes	70	35	169
Wyoming-----	No	No	<u>1</u> /7	4	6
The Nat'l. Coop. DHI Program-----	39	30	2,129	1,247	2,186

1/ Based on last report available (1-1-71).

TABLE 2.--Percentage of cows, by State, included in the program: Official DHI, Owner-Sampler, WADAM, and other unofficial plans

State	Rank	State	Rank
	<u>%</u>		<u>%</u>
Hawaii-----	70.0	Kansas-----	26.2
California-----	48.0	Ohio-----	25.6
South Carolina-----	45.8	Alabama-----	25.0
Arizona-----	43.3	West Virginia-----	24.6
Connecticut-----	41.2	New Mexico-----	24.3
New Hampshire-----	37.3	Colorado-----	22.4
Massachusetts-----	34.7	Minnesota-----	21.9
North Carolina-----	33.8	Rhode Island-----	21.3
Utah-----	33.8	Iowa-----	20.2
Pennsylvania-----	33.6	Indiana-----	19.1
Maine-----	33.4	Oklahoma-----	18.8
Nevada-----	33.1	Idaho-----	17.8
Washington-----	32.1	Florida-----	17.3
Georgia-----	31.9	Montana-----	15.7
Virginia-----	31.7	Louisiana-----	15.6
New Jersey-----	31.6	Nebraska-----	14.6
Vermont-----	30.8	Tennessee-----	13.7
Oregon-----	30.2	Mississippi-----	13.6
Delaware-----	30.0	Missouri-----	13.0
Maryland-----	29.4	Wyoming-----	13.0
Wisconsin-----	29.4	South Dakota-----	12.5
Alaska-----	28.2	Arkansas-----	11.8
New York-----	27.9	Texas-----	10.9
Michigan-----	27.6	Kentucky-----	9.2
Illinois-----	26.3	North Dakota-----	5.8
		United States-----	26.1

TABLE 3.--The National Cooperative Dairy Herd Improvement Program and other testing programs (January 1, 1972)

State	Official DHI (incl. DHIR)		Owner-Sampler		Weigh-a-Day -a-Month		Other unofficial plans ^{1/}		All testing programs		Milk cows in U.S.	
	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Total ^{2/}	In all plans
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Thou.	%
Ala-----	273	31,598	13	1,850	---	-----	-----	-----	286	33,448	134	25.0
Alaska----	3	81	7	399	---	-----	-----	-----	10	480	1.7	28.2
Ariz-----	70	20,448	4	2,508	---	-----	-----	-----	74	22,956	53	43.3
Ark-----	106	7,973	65	3,167	3	150	---	-----	174	11,290	96	11.8
Calif-----	1,511	367,632	92	11,427	---	-----	45	12,989	1,648	392,048	816	48.0
Colo-----	233	18,209	46	4,008	2	373	---	-----	281	22,590	101	22.4
Conn-----	346	23,033	42	2,029	4	358	1	150	393	25,570	62	41.2
Del-----	72	4,143	1	53	---	-----	-----	-----	73	4,196	14	30.0
Fla-----	69	18,060	-----	-----	21	7,525	19	8,522	109	34,107	197	17.3
Ga-----	330	34,117	-----	-----	77	12,500	-----	-----	407	46,617	146	31.9
Hawaii-----	12	4,595	1	653	4	3,849	-----	-----	17	9,097	13	70.0
Idaho-----	390	23,831	20	860	1	278	23	1,887	434	26,856	151	17.8
Ill-----	1,151	57,694	298	11,153	152	6,348	-----	-----	1,601	75,195	286	26.3
Ind-----	865	41,358	98	3,917	---	-----	-----	-----	963	45,275	237	19.1
Iowa-----	1,571	64,150	965	29,839	2	60	-----	-----	2,538	94,049	465	20.2
Kans-----	800	44,227	135	5,988	---	-----	-----	-----	935	50,215	192	26.2
Ky-----	512	28,294	31	1,533	12	889	-----	-----	555	30,716	334	9.2
La-----	142	13,851	3	310	151	11,944	-----	-----	296	26,105	167	15.6
Maine-----	373	19,241	67	2,741	---	-----	2	70	442	22,052	66	33.4
Md-----	600	44,141	63	3,231	---	-----	10	770	673	48,142	164	29.4
Mass-----	366	20,081	43	1,449	---	-----	-----	-----	409	21,530	62	34.7
Mich-----	1,363	85,931	945	41,398	---	-----	66	3,227	2,374	130,556	473	27.6
Minn-----	3,327	133,620	2,455	78,844	---	-----	-----	-----	5,782	212,464	971	21.9
Miss-----	262	23,596	4	397	10	600	-----	-----	276	24,593	181	13.6
Mo-----	603	34,858	187	8,863	---	-----	-----	-----	790	43,721	337	13.0
Mont-----	66	4,794	14	1,331	---	-----	-----	-----	80	6,125	39	15.7
Nebr-----	435	23,525	67	3,376	6	192	-----	-----	508	27,093	185	14.6
Nev-----	34	4,333	3	303	---	-----	-----	-----	37	4,636	14	33.1
N. H-----	182	10,654	50	2,100	13	679	-----	-----	245	13,433	36	37.3
N. J-----	287	19,453	13	687	---	-----	1	104	301	20,244	64	31.6
N. Mex-----	30	7,463	3	550	---	-----	-----	-----	33	8,013	33	24.3
N. Y-----	3,164	183,220	1,603	67,492	---	-----	334	20,877	5,101	271,589	973	27.9
N. C-----	734	58,674	34	1,901	23	979	-----	-----	791	61,554	182	33.8
N. Dak-----	128	5,834	20	890	25	910	-----	-----	173	7,634	132	5.8
Ohio-----	1,607	80,462	915	33,208	---	-----	-----	-----	2,522	113,670	444	25.6
Okla-----	335	24,224	54	2,844	---	-----	-----	-----	389	27,068	144	18.8
Oreg-----	351	27,426	46	2,210	---	-----	15	1,446	412	31,082	103	30.2
Pa-----	3,043	148,861	1,073	39,378	---	-----	951	45,465	5,067	233,704	696	33.6
P. R 3/-	34	7,036	-----	-----	23	5,485	-----	-----	57	12,521	-----	-----
R. I-----	32	1,490	-----	-----	---	-----	-----	-----	32	1,490	7	21.3
S. C-----	258	28,964	2	113	10	723	-----	-----	270	29,800	65	45.8
S. Dak-----	153	7,587	386	14,200	---	-----	-----	-----	539	21,787	174	12.5
Tenn-----	513	37,288	7	239	30	1,485	-----	-----	550	39,012	284	13.7
Tex-----	318	35,331	45	3,396	---	-----	-----	-----	363	38,727	355	10.9
Utah-----	400	26,641	17	714	---	-----	-----	-----	417	27,355	81	33.8
Vt-----	691	40,085	471	23,136	---	-----	-----	-----	1,162	63,221	205	30.8
Va-----	867	66,222	44	2,325	---	-----	-----	-----	911	68,547	216	31.7
Wash-----	641	54,676	32	1,952	---	-----	45	5,034	718	61,662	192	32.1
W. Va-----	183	11,294	19	759	27	725	-----	-----	229	12,778	52	24.6
Wis-----	3,330	162,397	10,839	385,620	---	-----	-----	-----	14,169	548,017	1,866	29.4
Wyo-----	31	1,989	3	214	---	-----	-----	-----	34	2,203	17	13.0
Total or percent: The Nat'l. Coop. DHI Program--	33,197	2,244,685	21,345	805,555	596	56,052	1,512	100,541	56,650	3,206,833	12,279	26.1
All test- ing Pro- grams 4/-	-----	-----	-----	-----	---	-----	-----	-----	58,471	3,269,705	-----	26.6

^{1/} Unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program such as Commercial, Breed Average Test, Tri-Monthly Test, Milk Only Record, Alternate AM-PM, and Tester Sampler.

^{2/} Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

^{3/} Based on last report available (1-1-71).

^{4/} The following number of herds and cows are on other testing programs such as Vocational Agriculture, Basic Production and Management, Private, Black Book (hand calculated), etc., by State: Alabama, 5 herds, 504 cows; Arizona, 38 herds, 8,150 cows; Colorado, 15 herds, 1,813 cows; Indiana, 1 herd, 41 cows; Iowa, 240 herds, 4,700 cows; Kentucky, 12 herds, 1,100 cows; New York, 4 herds, 148 cows; North Dakota, 28 herds, 1,080 cows; Wisconsin, 1,478 herds, 45,336 cows. Total = 1,821 herds, 62,872 cows.

TABLE 4.--Official DHI recordkeeping in the United States (January 1, 1972)

State	Official DHI (incl. DHIR)			Change from 1-1-71	Av. cows per herd	All milk cows 1/ Thou.	Official DHI cows as percent of all milk cows 2/ %	Dairy Herd Improvement Registry 3/ Herds Cows	
	Counties	Herds	Cows						
	No.	No.	No.	No.	No.			No.	No.
Ala-----	4/51	273	31,598	+963	115.7	134	23.6	14	1,826
Alaska-----	2	3	81	+1	27.0	1.7	4.8	2	59
Ariz-----	4	70	20,448	+4,323	292.1	53	38.6	22	5,366
Ark-----	18	106	7,973	-44	75.2	96	8.3	12	708
Calif-----	41	1,511	367,632	-5,361	243.3	816	45.1	97	20,178
Colo-----	15	233	18,209	-429	78.2	101	18.0	37	2,735
Conn-----	8	346	23,033	+291	66.6	62	37.2	57	3,748
Del-----	3	72	4,143	-147	57.5	14	29.6	8	455
Fla-----	24	69	18,060	-2,643	261.7	197	9.2	6	2,017
Ga-----	86	330	34,117	-185	103.4	146	23.4	22	2,556
Hawaii-----	1	12	4,595	+329	382.9	13	35.3	---	---
Idaho-----	28	390	23,831	-1,202	61.1	151	15.8	30	1,540
Ill-----	79	1,151	57,694	+1,623	50.1	286	20.2	122	6,087
Ind-----	89	865	41,358	-28	47.8	237	17.5	147	6,660
Iowa-----	95	1,571	64,150	+1,968	40.8	465	13.8	166	6,559
Kans-----	86	800	44,227	+1,365	55.3	192	23.0	95	5,061
Ky-----	65	512	28,294	+2,397	55.3	334	8.5	60	4,500
La-----	26	142	13,851	+1,886	97.5	167	8.3	8	861
Maine-----	16	373	19,241	+1,263	51.6	66	29.2	49	2,831
Md-----	17	600	44,141	+494	73.6	164	26.9	71	5,526
Mass-----	11	366	20,081	+1,053	54.9	62	32.4	78	3,953
Mich-----	76	1,363	85,931	+4,790	63.0	473	18.2	98	6,618
Minn-----	83	3,327	133,620	+8,217	40.2	971	13.8	148	6,292
Miss-----	41	262	23,596	-1,865	90.1	181	13.0	25	2,401
Mo-----	78	603	34,858	+1,056	57.8	337	10.3	47	3,110
Mont-----	8	66	4,794	-616	72.6	39	12.3	9	565
Nebr-----	5/59	435	23,525	+1,421	54.1	185	12.7	43	3,324
Nev-----	5	34	4,333	-62	127.4	14	31.0	13	1,127
N. H-----	9	182	10,654	-258	58.5	36	29.6	44	2,550
N. J-----	5/10	287	19,453	-209	67.8	64	30.4	40	2,954
N. Mex-----	9	30	7,463	-2,291	248.8	33	22.6	9	2,946
N. Y-----	47	3,164	183,220	-13,189	57.9	973	18.8	251	14,794
N. C-----	75	734	58,674	+2,117	79.9	182	32.2	48	4,434
N. Dak-----	29	128	5,834	+161	45.6	132	4.4	11	507
Ohio-----	78	1,607	80,462	-6,446	50.1	444	18.1	309	16,242
Okla-----	57	335	24,224	-87	72.3	144	16.8	48	3,047
Oreg-----	25	351	27,426	+1,526	78.1	103	26.6	35	3,026
Pa-----	65	3,043	148,861	-1,469	48.9	696	21.4	195	11,372
P. R 5/-----	25	34	7,036	0	206.9	---	---	---	---
R. I-----	5	32	1,490	-207	46.6	7	21.3	12	569
S. C-----	32	258	28,964	+78	112.3	65	44.6	42	5,274
S. Dak-----	46	153	7,587	+406	49.6	174	4.4	22	968
Tenn-----	55	513	37,288	+3,463	72.7	284	13.1	41	3,335
Tex-----	5/73	318	35,331	+4,516	111.1	355	10.0	62	7,353
Utah-----	5/18	400	26,641	+2,247	66.6	81	32.9	19	1,431
Vt-----	14	691	40,085	-65	58.0	205	19.6	114	6,360
Va-----	74	867	66,222	+898	76.4	216	30.7	70	6,149
Wash-----	29	641	54,676	+2,515	85.3	192	28.5	94	7,472
W. Va-----	24	183	11,294	+779	61.7	52	21.7	12	979
Wis-----	68	3,330	162,397	+10,735	48.8	1,866	8.7	478	23,859
Wyo-----	6	31	1,989	+205	64.2	17	11.7	3	181
Total, average, or percent----	1,988	33,197	2,244,685	+26,283	67.6	12,279	18.3	3,445	232,465

1/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

2/ Percentage of cows included in the Official DHI (including DHIR) recordkeeping plan.

3/ Included in count of Official DHI herds and cows.

4/ Based on last report available (1-1-70).

5/ Based on last report available (1-1-71).

TABLE 5.--Dairy Herd Improvement Registry recordkeeping in the United States (January 1, 1972)

State	Dairy Herd Improvement Registry ^{1/}			Change from 1-1-71	Av. cows per herd	All milk cows ^{2/}	DHIR cows as pct. of all milk cows ^{3/}
	Counties	Herds	Cows				
	No.	No.	No.	No.	No.	Thou.	%
Alabama-----	9	14	1,826	+17	130.4	134	1.4
Alaska-----	2	2	59	+4	29.5	1.7	3.5
Arizona-----	3	22	5,366	-67	243.9	53	10.1
Arkansas-----	5	12	708	+188	59.0	96	0.7
California-----	23	97	20,178	+503	208.0	816	2.5
Colorado-----	11	37	2,735	+954	73.9	101	2.7
Connecticut-----	8	57	3,748	+430	65.8	62	6.0
Delaware-----	2	8	455	-37	56.9	14	3.3
Florida-----	6	6	2,017	+572	336.2	197	1.0
Georgia-----	14	22	2,556	-271	116.2	146	1.8
Hawaii-----	-----	-----	-----	-----	-----	13	-----
Idaho-----	16	30	1,540	-43	51.3	151	1.0
Illinois-----	44	122	6,087	+25	49.9	286	2.1
Indiana-----	37	147	6,660	-657	45.3	237	2.8
Iowa-----	62	166	6,559	-422	39.5	465	1.4
Kansas-----	50	95	5,061	-639	53.3	192	2.6
Kentucky-----	35	60	4,500	+2,100	75.0	334	1.3
Louisiana-----	4	8	861	-391	107.6	167	.5
Maine-----	13	49	2,831	-151	57.8	66	4.3
Maryland-----	13	71	5,526	-1,392	77.8	164	3.4
Massachusetts---	10	78	3,953	-131	50.7	62	6.4
Michigan-----	40	98	6,618	-2,829	67.5	473	1.4
Minnesota-----	55	148	6,292	-570	42.5	971	.6
Mississippi-----	14	25	2,401	-74	96.0	181	1.3
Missouri-----	24	47	3,110	-878	66.2	337	.9
Montana-----	3	9	565	-218	62.8	39	1.4
Nebraska-----	4/23	43	3,324	+61	77.3	185	1.8
Nevada-----	4	13	1,127	-63	86.7	14	8.1
New Hampshire---	9	44	2,550	+309	58.0	36	7.1
New Jersey-----	5	40	2,954	-341	73.9	64	4.6
New Mexico-----	7	9	2,946	-327	327.3	33	8.9
New York-----	46	251	14,794	-2,771	58.9	973	1.5
North Carolina--	24	48	4,434	-181	92.4	182	2.4
North Dakota---	6	11	507	-222	46.1	132	.4
Ohio-----	62	309	16,242	-1,517	52.6	444	3.7
Oklahoma-----	22	48	3,047	-149	63.5	144	2.1
Oregon-----	17	35	3,026	+196	86.5	103	2.9
Pennsylvania---	45	195	11,372	+52	58.3	696	1.6
Puerto Rico ^{4/} ---	-----	-----	-----	-----	-----	---	-----
Rhode Island---	4	12	569	-109	47.4	7	8.1
South Carolina---	16	42	5,274	+27	125.6	65	8.1
South Dakota---	17	22	968	+93	44.0	174	.6
Tennessee-----	21	41	3,335	+27	81.3	284	1.2
Texas-----	4/31	62	7,353	+647	118.6	355	2.1
Utah-----	4	19	1,431	-18	75.3	81	1.8
Vermont-----	14	114	6,360	+414	55.8	205	3.1
Virginia-----	34	70	6,149	+100	87.8	216	2.8
Washington-----	21	94	7,472	+106	79.5	192	3.9
West Virginia---	8	12	979	-422	81.6	52	1.9
Wisconsin-----	61	478	23,859	+119	49.9	1,866	1.3
Wyoming-----	3	3	181	+6	60.3	17	1.1
Total, average, or percent---	1,007	3,445	232,465	-7,940	67.5	12,279	1.9

^{1/} Included in count of Official DHI herds and cows in tables 3, 4, and 9.^{2/} Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the by the Statistical Reporting Service (USDA).^{3/} Percentage of cows included in the Dairy Herd Improvement Registry recordkeeping plan.^{4/} Based on last report available (1-1-71).

TABLE 6.--Owner-Sampler recordkeeping in the United States (January 1, 1972)

State	Owner-Sampler			Change from 1-1-71	Av. cows per herd	All milk cows ^{1/}	O.-S. cows as pct. of all milk cows ^{2/}
	Counties	Herds	Cows				
	No.	No.	No.	No.	No.	Thou.	%
Ala-----	8	13	1,850	+837	142.3	134	1.4
Alaska-----	1	7	399	+54	57.0	1.7	23.5
Ariz-----	1	4	2,508	-10,201	627.0	53	4.7
Ark-----	19	65	3,167	-681	48.7	96	3.3
Calif-----	18	92	11,427	+6,635	124.2	816	1.4
Colo-----	15	46	4,008	+3,132	87.1	101	4.0
Conn-----	8	42	2,029	-123	48.3	62	3.3
Del-----	1	1	53	-33	53.0	14	0.4
Fla-----	-----	-----	-----	-----	-----	197	-----
Ga-----	-----	-----	-----	-382	-----	146	-----
Hawaii-----	3/1	1	653	-227	653.0	13	5.0
Idaho-----	10	20	860	-113	43.0	151	.6
Ill-----	32	298	11,153	+680	37.4	286	3.9
Ind-----	31	98	3,917	-9,891	40.0	237	1.7
Iowa-----	79	965	29,839	-1,743	30.9	465	6.4
Kans-----	31	135	5,988	+88	44.4	192	3.1
Ky-----	4/15	31	1,533	+359	49.5	334	.5
La-----	3	3	310	-19	103.3	167	.2
Maine-----	13	67	2,741	-320	40.9	66	4.2
Md-----	4/11	63	3,231	+44	51.3	164	2.0
Mass-----	8	43	1,449	-261	33.7	62	2.3
Mich-----	76	945	41,398	-66	43.8	473	8.8
Minn-----	83	2,455	78,844	+7,299	32.1	971	8.1
Miss-----	3	4	397	+205	99.3	181	.2
Mo-----	49	187	8,863	-62	47.4	337	2.6
Mont-----	6	14	1,331	-302	95.1	39	3.4
Nebr-----	4/24	67	3,376	+102	50.4	185	1.8
Nev-----	2	3	303	-2,104	101.0	14	2.2
N. H-----	8	50	2,100	-439	42.0	36	5.8
N. J-----	4	13	687	-345	52.8	64	1.1
N. Mex-----	2	3	550	-3,039	183.3	33	1.7
N. Y-----	4/47	1,603	67,492	-14,557	42.1	973	6.9
N. C-----	17	34	1,901	-91	55.9	182	1.0
N. Dak-----	6	20	890	+88	44.5	132	.7
Ohio-----	67	915	33,208	-2,802	36.3	444	7.5
Okl-----	24	54	2,844	-106	52.7	144	2.0
Oreg-----	13	46	2,210	-1,690	48.0	103	2.1
Pa-----	62	1,073	39,378	-4,793	36.7	696	5.7
P. R ^{4/} -----	-----	-----	-----	-----	-----	-----	-----
R. I-----	-----	-----	-----	-----	-----	7	-----
S. C-----	2	2	113	-57	56.5	65	.2
S. Dak-----	51	386	14,200	+350	36.8	174	8.2
Tenn-----	7	7	239	+47	34.1	284	.1
Tex-----	4/14	45	3,396	+573	75.5	355	1.0
Utah-----	6	17	714	-56	42.0	81	.9
Vt-----	14	471	23,136	-2,003	49.1	205	11.3
Va-----	16	44	2,325	+218	52.8	216	1.1
Wash-----	14	32	1,952	+613	61.0	192	1.0
W. Va-----	7	19	759	-41	39.9	52	1.5
Wis-----	70	10,839	385,620	+4,108	35.6	1,866	20.7
Wyo-----	1	3	214	-81	71.3	17	1.3
Total, average, or percent---	1,000	21,345	805,555	-31,196	37.7	12,279	6.6

^{1/} Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

^{2/} Percentage of cows included in the Owner-Sampler recordkeeping plan.

^{3/} Based on an estimate of one herd per county.

^{4/} Based on last report available (1-1-71).

TABLE 7.--Weigh-a-Day-a-Month recordkeeping in the United States (January 1, 1972)

State	Weigh-a-Day-a-Month		Cows	Change from 1-1-71	Av. cows per herd	All milk cows <u>1</u> /	WADAM cows as percent of all milk cows <u>2</u> /
	Counties	Herds					
	No.	No.	No.	No.	No.	Thou.	%
Ala-----	---	---	---	-243	----	134	----
Ark-----	2	3	150	+35	50.0	96	0.2
Colo-----	2	2	373	+373	186.5	101	.4
Conn-----	3	4	358	+37	89.5	62	.6
Fla-----	9	21	7,525	+2,639	358.3	197	3.8
Ga-----	34	77	12,500	+3,824	162.3	146	8.6
Hawaii-----	<u>3</u> /2	4	3,849	+401	962.3	13	29.6
Idaho-----	1	1	278	+278	278.0	151	.2
Ill-----	34	152	6,348	-57	41.8	286	2.2
Iowa-----	1	2	60	-20	30.0	465	----
Ky-----	<u>4</u> /12	12	889	+158	74.1	334	.3
La-----	21	151	11,944	-359	79.1	167	7.2
Miss-----	3	10	600	-99	60.0	181	.3
Nebr-----	<u>4</u> /6	6	192	-217	32.0	185	.1
N. H-----	4	13	679	+184	52.2	36	1.9
N. J-----	---	---	---	-10	----	64	----
N. C-----	17	23	979	-223	42.6	182	.5
N. Dak-----	16	25	910	+55	36.4	132	.7
P. R <u>3</u> /-----	12	23	5,485	0	238.5	----	----
S. C-----	6	10	723	+295	72.3	65	1.1
Tenn-----	18	30	1,485	-47	49.5	284	.5
Tex-----	---	---	-----	-656	----	355	----
Va-----	---	---	-----	-144	----	216	----
W. Va-----	12	27	725	-11	26.9	52	1.4
Wyo-----	---	---	-----	-54	----	17	----
Total, average, or percent----	215	596	56,052	+6,139	94.0	12,279	.5

1/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA). The total for all milk cows includes those States not listed.

2/ Percentage of cows included in the Weigh-a-Day-a-Month recordkeeping plan.

3/ Based on last report available (1-1-71).

4/ Based on an estimate of one herd per county.

TABLE 8.--Other unofficial recordkeeping plans^{1/} in the United States (January 1, 1972)

State	Other Unofficial Plans			Change from 1-1-71	Av. cows per herd	All milk cows ^{2/}	Cows in unofficial plans as percent of all milk cows ^{3/}
	Type of plan	Counties	Herds				
		No.	No.	No.	No.	Thou.	%
Calif----	Commercial	7	45	12,989	-5,671	288.6	1.6
Colo-----	-----	---	-----	-----	-561	101	---
Conn-----	AM-PM	1	1	150	+150	150.0	0.2
Fla-----	Breed Average Test	11	19	8,522	+1,792	448.5	4.3
Idaho-----	AM-PM	9	23	1,887	+1,887	82.0	1.2
Maine-----	Milk Only Record	1	1	24	+24	24.0	.04
Maine-----	AM-PM	1	1	46	+46	46.0	.1
Md-----	Commercial	4/4	10	770	-40	77.0	.5
Mich-----	Tri-Monthly Testing	27	66	3,227	-657	48.9	.7
N. J-----	Milk Only Record	1	1	104	+104	104.0	.2
N. Y-----	Milk Only Record	4/22	134	10,233	+795	76.4	1.1
N. Y-----	AM-PM	(5/)	200	10,644	+10,644	53.2	1.1
Oreg-----	Tester-Sampled	(5/)	15	1,446	+1,446	96.4	1.4
Pa-----	Alternate AM-PM	51	951	45,465	+1,425	47.8	6.5
Wash-----	Tester-Sampler	7	31	2,995	+727	96.6	1.6
Wash-----	AM-PM	5	14	2,039	+2,039	145.6	1.1
Total, average, or pct.		169	1,512	100,541	+14,150	66.5	.8

^{1/} Other unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program.

^{2/} Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1972, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA). The total for all milk cows includes those in States not listed.

^{3/} Percentage of cows included in other unofficial recordkeeping plans.

^{4/} Based on last report available (1-1-71).

^{5/} Unknown.

TABLE 9.--Percent of herds and cows enrolled in State and regional computing centers (January 1, 1972)

	Official DHI (incl. DHIR)		Owner-Sampler		Weigh-a-Day- a-Month		Other unofficial plans 1/		Machine processing as percent of total recordkeeping	
State	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows
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TABLE 10.--Status of the Official Dairy Herd Improvement Plan in the United States (1940-1972, inclusive) 1/

Year	Associa- tions 2/	Super- visors 2/	Official DHI Plan								Percent of cows on test: all plans		
			Herds	Cows	Cows per herd	Pct. of U.S.cows	Herds reported	Average production			U.S. cows 3/	On test	
								Cows reported	Milk	Milk fat			
	No.	No.	No.	No.	No.	%	No.	No.	Lb.	%	Lb.	Thou.	%
1940----	1,300	-----	27,948	676,141	24.2	2.91	-----	545,382	8,133	4.07	331	4/23,273	2.91
1941----	1,383	-----	31,381	763,502	24.3	3.23	-----	591,103	8,225	4.07	335	23,671	3.23
1942----	1,421	-----	32,957	816,117	24.8	3.36	-----	514,758	8,323	4.07	339	24,288	3.36
1943----	1,057	-----	24,155	616,972	25.5	2.47	-----	375,914	8,325	4.06	338	25,027	2.47
1944----	954	-----	20,825	561,587	27.0	2.21	-----	383,337	8,296	4.05	336	25,451	2.21
1945----	949	-----	21,254	577,200	27.2	2.25	-----	384,360	8,592	4.03	346	25,597	2.25
1946----	1,124	-----	23,331	627,878	27.0	2.51	-----	413,554	8,635	4.04	349	25,033	2.51
1947----	1,426	-----	28,812	775,546	26.9	3.22	-----	533,061	8,638	4.03	348	24,089	3.22
1948----	1,668	-----	33,274	886,129	26.6	3.80	-----	620,385	8,675	4.03	350	23,329	3.80
1949----	1,787	-----	35,851	943,939	26.3	4.23	-----	729,150	8,907	4.03	359	22,336	4.23
1950----	1,973	-----	40,100	1,088,872	27.2	4.94	-----	836,922	9,172	4.03	370	22,024	4.94
1951----	2,143	-----	42,949	1,186,615	27.6	5.41	-----	885,859	9,195	4.02	370	21,944	5.41
1952----	2,109	-----	40,105	1,166,297	29.1	5.42	-----	928,376	9,192	3.98	366	21,505	5.42
1953----	2,151	-----	40,983	1,226,588	29.9	5.75	-----	1,020,326	9,253	3.98	368	21,338	5.75
1954----	2,175	-----	41,254	1,311,698	31.8	6.05	-----	1,079,557	9,363	3.97	372	21,691	6.05
1955----	2,288	-----	41,240	1,333,866	32.3	6.18	-----	1,175,378	9,502	3.95	375	21,581	6.18
1956----	2,266	-----	40,984	1,406,306	34.4	6.68	-----	1,229,971	9,713	3.94	383	5/21,044	8.46
1957 6/-	1,700	2,310	41,638	1,479,799	35.5	7.22	-----	1,256,129	9,894	3.93	389	7/20,501	9.30
1958----	1,544	2,293	39,985	1,548,884	38.7	7.83	-----	1,345,750	10,068	3.91	394	19,774	10.71
1959----	1,500	2,337	40,284	1,607,538	39.9	8.59	-----	1,406,665	10,327	3.88	401	18,711	11.93
1960----	1,509	2,397	41,293	1,746,752	42.3	9.76	-----	1,343,725	10,561	3.87	409	17,901	13.63
1961----	1,395	2,448	42,558	1,867,469	43.9	10.66	28,649	1,280,785	10,796	3.87	418	17,515	14.81
1962----	1,436	2,472	42,034	1,958,355	46.6	11.36	32,794	1,531,826	11,032	3.86	426	17,243	15.82
1963----	1,441	2,516	41,937	2,006,534	47.8	11.91	35,378	1,674,803	11,286	3.85	434	16,842	16.53
1964----	1,420	2,474	40,670	2,010,144	49.4	12.36	35,689	1,746,475	11,685	3.83	447	16,260	17.36
1965----	1,424	2,439	40,075	2,087,581	52.1	13.32	35,604	1,821,252	11,976	3.82	457	15,677	18.90
1966----	1,418	2,378	38,879	2,058,592	52.9	13.77	34,886	1,852,533	12,127	3.81	462	14,954	19.76
1967----	1,344	2,319	37,683	2,098,919	55.7	15.22	34,515	1,890,024	12,307	3.80	468	8/13,793	21.59
1968----	1,318	2,304	36,869	2,131,929	57.8	16.06	33,560	1,924,200	12,397	3.80	471	13,273	22.82
1969----	1,289	2,250	35,617	2,138,953	60.1	16.65	33,130	1,959,647	12,553	3.79	476	12,847	23.55
1970----	1,267	2,225	34,308	2,122,011	61.9	16.87	31,138	1,937,390	12,750	3.79	483	9/12,578	24.81
1971----	1,274	2,201	33,996	2,218,402	65.3	17.87	30,699	1,995,463	13,000	3.76	489	12,414	25.71
1972----	1,247	2,186	33,197	2,244,685	67.6	18.28	-----	-----	-----	----	---	12,279	26.12

1/ Data of the status report for the years 1906-1939 are included in table 10 of the May 1970 Dairy Herd Improvement Letter, ARS 44-215.

2/ Number of associations and supervisors include all plans.

3/ Estimated by the Statistical Reporting Service (USDA).

4/ For 1940 through 1966, average number of milk cows on farms during previous year, excluding heifers not yet fresh.

5/ Owner-Sampler testing began in 1956.

6/ Prior to 1957, associations were counted on the basis of supervisor circuits.

7/ Weigh-a-Day-a-Month testing began in 1957.

8/ For 1967 through 1969, average number of milk cows on farms in December of previous year, excluding heifers not yet fresh.

9/ Beginning 1970, average number of milk cows and heifers that have calved January 1 of stated year, excluding heifers not yet fresh.

TABLE 11.--Status of the Owner-Sampler plan in the National Cooperative Dairy Herd Improvement Program (1956-1972) 1/

Owner-Sampler plan									
Year	Herds	Cows	Cows per herd	Pct. of U.S. cows	Average production				
					Herds included	Cows included	Milk	Milk	Milk
	No.	No.	No.	%	No.	No.	Lb.	%	Lb.
1956----	17,110	374,479	21.9	1.78	-----	-----	-----	-----	---
1957----	20,778	405,090	19.5	1.98	-----	-----	-----	-----	---
1958----	21,269	490,001	23.0	2.48	-----	-----	-----	-----	---
1959----	22,807	549,916	24.1	2.94	-----	-----	-----	-----	---
1960----	24,274	615,899	25.4	3.44	-----	-----	-----	-----	---
1961----	24,498	655,885	26.8	3.74	-----	-----	-----	-----	---
1962----	24,954	698,302	28.0	4.05	-----	-----	-----	-----	---
1963----	25,376	726,478	28.6	4.31	14,761	423,545	10,606	3.73	396
1964----	25,598	752,229	29.4	4.63	13,574	385,493	10,885	3.71	404
1965----	26,604	818,406	30.8	5.22	18,409	559,608	11,402	3.71	423
1966----	26,259	839,838	32.0	5.62	19,172	598,133	11,472	3.70	425
1967----	25,439	825,127	32.4	5.98	17,912	575,816	11,607	3.72	432
1968----	25,143	847,485	33.7	6.39	17,318	592,647	11,847	3.72	441
1969----	24,359	842,330	34.6	6.56	17,908	614,939	11,932	3.72	444
1970----	23,281	839,343	36.1	6.67	16,971	611,819	12,185	3.72	453
1971----	22,581	836,751	37.1	6.74	16,569	612,080	12,413	3.71	460
1972----	21,345	805,555	37.7	6.56	-----	-----	-----	-----	---

1/ Tabulation of the Owner-Sampler plan began in 1956.

TABLE 12.--Status of plans other than Official DHI or Owner-Sampler in the National Cooperative Dairy Herd Improvement Program (1957-1972) 1/

Weigh-a-Day-a-Month plan					Other unofficial plans			
Year	Herds	Cows	Cows per herd	Pct. of U.S. cows	Herds	Cows	Cows per herd	Pct. of U.S. cows
	No.	No.	No.	%	No.	No.	No.	%
1957----	1,174	21,297	18.1	0.10	-----	-----	-----	-----
1958----	3,629	79,489	21.9	.40	-----	-----	-----	-----
1959----	2,998	74,814	25.0	.40	-----	-----	-----	-----
1960----	3,119	76,392	24.5	.43	-----	-----	-----	-----
1961----	2,363	70,847	30.0	.40	-----	-----	-----	-----
1962----	1,936	70,617	36.5	.41	-----	-----	-----	-----
1963----	1,500	50,492	33.7	.30	-----	-----	-----	-----
1964----	1,396	60,149	43.1	.37	-----	-----	-----	-----
1965----	1,229	56,570	46.0	.36	-----	-----	-----	-----
1966----	1,160	56,957	49.1	.38	-----	-----	-----	-----
1967----	1,001	53,429	53.4	.39	-----	-----	-----	-----
1968----	867	48,853	56.3	.37	-----	-----	-----	-----
1969----	708	44,131	62.3	.34	-----	-----	-----	-----
1970----	703	47,493	67.6	.38	1,337	111,296	83.2	0.88
1971----	628	49,913	79.5	.40	1,307	86,391	66.1	.70
1972----	596	56,052	94.0	.46	1,512	100,541	66.5	.82

1/ Tabulation of the Weigh-a-Day-a-Month plan began in 1957; tabulation of other unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program began in 1970.

TABLE 13.--Counties, by State, with 40 percent or more cows included in the National Cooperative Dairy Herd Improvement Program--January 1, 1972
(Numerals in parentheses at the end of county listing show the percentage of the States' counties that have 25 percent or more of their cows on test.)

State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans
	%		%		%
ALABAMA		FLORIDA		INDIANA	
Elmore-----	83	Putnam-----	100	Boone-----	47
Cherokee-----	71	St. Johns-----	100	Cass-----	45
Etowah-----	69	Seminole-----	100	Putnam-----	43
Escambia-----	68	Jefferson-----	79	(24%)	
Coffee-----	53	Union-----	75	IOWA	
Russell-----	53	Manatee-----	67	Dallas-----	75
Baldwin-----	51	Sumter-----	63	Story-----	64
Blount-----	51	Washington-----	62	Polk-----	58
Bullock-----	50	Orange-----	60	Webster-----	52
Conecuh-----	47	Gilchrist-----	59	Boone-----	51
Henry-----	47	Holmes-----	56	Warren-----	46
St. Clair-----	47	Indian River-----	54	Scott-----	45
Madison-----	45	Lafayette-----	54	Jasper-----	43
Talladega-----	43	Pinellas-----	46	Franklin-----	41
(34%)		Leon-----	45	Hamilton-----	41
ALASKA		Alachua-----	40	(33%)	
(50%)		(31%)		KANSAS	
ARIZONA		GEORGIA		Haskell-----	83
Pinal-----	98	Dooley-----	95	Wallace-----	70
Pima-----	86	Peach-----	90	Logan-----	66
Cochise-----	85	Houston-----	88	Meade-----	65
Maricopa-----	65	Macon-----	88	Saline-----	56
(29%)		Lamar-----	85	Harvey-----	52
ARKANSAS		McDuffie-----	84	Pawnee-----	50
Pope-----	70	Mitchell-----	79	Rice-----	50
Miller-----	65	Newton-----	79	Harper-----	49
(5%)		Jeff Davis-----	75	Comanche-----	46
CALIFORNIA		Jefferson-----	72	Franklin-----	45
San Mateo-----	100	Jones-----	71	Dickinson-----	40
Ventura-----	94	Worth-----	69	Greenwood-----	40
Contra Costa-----	81	Clarke-----	67	Hamilton-----	40
Shasta-----	79	Burke-----	66	(35%)	
Tehama-----	77	Lee-----	65	LOUISIANA	
Madera-----	76	Spalding-----	65	Natchitoches-----	99
Kern-----	74	Thomas-----	62	Franklin-----	60
Sutter-----	74	Clayton-----	60	Quachita-----	60
Yuba-----	74	Walton-----	59	Bienville-----	52
Marin-----	67	Stewart-----	58	Rapides-----	52
Monterey-----	61	Carroll-----	57	Morehouse-----	50
San Joaquin-----	61	Tift-----	57	Beauregard-----	49
Colusa-----	55	Schley-----	54	(25%)	
Fresno-----	55	Brooks-----	51	MAINE	
Sonoma-----	55	Douglas-----	50	Oxford-----	51
Alameda-----	54	Fayette-----	48	Twin-----	45
Santa Barbara-----	54	Dougherty-----	47	(44%)	
Santa Clara-----	51	Butts-----	46	MARYLAND	
Tulare-----	50	Tattnall-----	46	Dorchester-----	45
San Bernardino-----	49	Henry-----	45	(42%)	
San Diego-----	49	Jasper-----	45	MASSACHUSETTS	
Stanislaus-----	49	Richmond-----	42	Barnstable-----	73
Merced-----	48	(28%)		Hampshire-----	47
Sacramento-----	46	HAWAII		Berkshire-----	45
Kings-----	41	Maui-----	100	(43%)	
San Luis Obispo-----	41	Kauai-----	74	MICHIGAN	
Santa Cruz-----	41	Oahu-----	73	Calhoun-----	52
San Benito-----	40	(80%)		Genessee-----	52
(67%)		ILLINOIS		Gratiot-----	49
CONNECTICUT		Lawrence-----	99	Lenawee-----	49
Tolland-----	58	Champaign-----	71	Hillsdale-----	47
Hartford-----	53	Monroe-----	71	Shiawassee-----	47
Litchfield-----	48	McLean-----	51	Barry-----	46
New Haven-----	40	Tazewell-----	51	Ingham-----	46
(75%)		Bond-----	49	Kalamazoo-----	46
DELAWARE		Jasper-----	49	Berrien-----	43
Sussex-----	56	Stark-----	47	Clinton-----	41
(67%)		Menard-----	46	(47%)	
		Effingham-----	44		
		Lake-----	40		
		(36%)			

TABLE 13.--Counties, by State, with 40 percent or more cows included in the National Cooperative Dairy Herd Improvement Program--January 1, 1972--Continued

State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans
	%		%		%
MINNESOTA		NORTH CAROLINA (contd.)		PENNSYLVANIA	
Ramsey-----	70	Granville-----	58	Montgomery-----	86
Traverse-----	43	Pender-----	58	Huntingdon-----	53
Hennepin-----	42	Guilford-----	57	Blair-----	48
Goodhue-----	40	Randolph-----	57	Clearfield-----	48
(29%)		Caswell-----	56	Lancaster-----	48
MISSISSIPPI		Chatham-----	56	Sullivan-----	47
Washington-----	60	Richmond-----	56	Mifflin-----	46
(10%)		Wayne-----	54	Clinton-----	44
MISSOURI		Forsyth-----	52	Northumberland-----	43
Callaway-----	62	Alamance-----	51	Chester-Delaware-----	41
(11%)		Person-----	50	Perry-----	41
MONTANA		Johnston-----	48	Bucks-----	40
Powell-----	67	Yadkin-----	48	Dauphin-----	40
Lewis & Clark-----	65	Davidson-----	47	Juniata-----	40
(7%)		Brunswick-----	46	(66%)	
NEBRASKA		Cleveland-----	46	RHODE ISLAND	
Douglas-----	43	Gaston-----	46	Kent-----	50
(17%)		Wilson-----	46	(40%)	
NEVADA		Bladen-----	45	SOUTH CAROLINA	
Churchill-----	97	Catawba-----	45	Beaufort-----	100
Clark-----	42	Rowan-----	45	Calhoun-----	100
(24%)		Sampson-----	44	Kershaw-----	100
NEW HAMPSHIRE		Union-----	44	Clarendon-----	90
Sullivan-----	58	Surrey-----	43	Bamberg-----	81
Strafford-----	46	Montgomery-----	42	Lee-----	77
Merrimack-----	43	Henderson-----	41	Marlboro-----	73
Cheshire-----	41	Mecklenburg-----	41	Greenville-----	72
(80%)		(60%)		Sumter-----	70
NEW JERSEY		OHIO		Saluda-----	63
Burlington-----	51	Paulding-----	65	Orangeburg-----	60
(14%)		Erie-----	55	Newberry-----	57
NEW MEXICO		Hamilton-----	49	Jasper-----	56
Sierra-----	73	Wayne-----	49	Colleton-----	54
Otero-----	57	Williams-----	49	Barnwell-----	50
Bernalillo-----	51	Van Wert-----	48	Abbeville-----	46
(13%)		Fulton-----	45	Dorchester-----	44
NEW YORK		Lorain-----	45	Laurens-----	44
Dutchess-----	53	Marion-----	45	Williamsburg-----	41
Columbia-----	52	Tuscarawas-----	42	(57%)	
Tompkins-----	48	Ashland-----	41	SOUTH DAKOTA	
Schoharie-----	44	Greene-----	41	(4%)	
Ontario-----	42	Auglaize-----	40	TENNESSEE	
Livingston-----	41	Madison-----	40	Dyer-----	41
Yates-----	40	Mercer-----	40	(2%)	
(44%)		Warren-----	40	TEXAS	
NORTH CAROLINA		(48%)		Burleson-----	50
Bertie-----	100	OKLAHOMA		Dallas-----	50
Jones-----	100	Atoka-----	100	Milam-----	50
Nash-----	100	Pittsburg-----	100	San Patricio-----	50
Swain-----	100	Grant-----	80	Scurry-----	50
Lenoir-----	89	Texas-----	78	Brazos-----	40
Onslow-----	88	Kay-----	60	(9%)	
Pitt-----	87	Woodward-----	55	UTAH	
Hyde-----	85	Osage-----	50	Wasatch-----	72
Halifax-----	84	Stephens-----	45	Summit-----	64
Wake-----	81	Garvin-----	40	Salt Lake-----	61
Orange-----	79	(35%)		Davis-----	58
Harnett-----	77	OREGON		Sanpete-----	57
Franklin-----	72	Josephine-----	58	Beaver-----	44
Macon-----	67	Union-----	56	Utah-----	41
Cumberland-----	60	Klamath-----	53	Weber-----	40
Columbus-----	59	Benton-----	50	(55%)	
Buncombe-----	58	Jackson-----	47	VERMONT	
		Deschutes-----	46	Bennington-----	59
		Crook-----	45	Windsor-----	57
		Lane-----	45	Washington-----	50
		Washington-----	43	(71%)	
		Linn-----	41		
		(44%)			

TABLE 13.--Counties, by State, with 40 percent or more cows included in the National Cooperative Dairy Herd Improvement Program--January 1, 1972--Continued

State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans
	%		%		%
VIRGINIA		VIRGINIA (contd.)		WASHINGTON (contd.)	
City of Newport News-----	100	Fauquier-----	47	Grant-----	47
James City-----	100	Botetourt-----	46	Grays Harbor-----	47
Prince George-----	96	Augusta-----	45	Oakanogan-----	45
Rockbridge-----	91	Southampton-----	45	Wahkiakum-----	45
City of Virginia Beach-----	78	Spotsylvania-----	43	Spokane-----	44
Nansemond-----	77	Dinwiddie-----	42	(59%)	
Fairfax-----	73	Powhatan-----	42		
Hanover-----	68	Loudoun-----	41	WEST VIRGINIA	
Madison-----	66	Rockingham-----	41	(5%)	
Gloucester-----	64	(49%)			
City of Chesapeake-----	62			WISCONSIN	
Brunswick-----	60	WASHINGTON		Kenosha-----	46
Culpeper-----	59	Klickitat-----	69	Manitowoc-----	46
Isle of Wight-----	59	Kittitas-----	66	Walworth-----	46
Middlesex-----	59	Walla Walla-----	66	Florence-----	45
Nottoway-----	59	Jefferson-----	55	Barron-----	42
Caroline-----	57	Pacific-----	55	Winnebago-----	42
Clarke-----	57	Island-----	51	Door-----	41
Henrico-----	56	Thurston-----	51	(65%)	
Pulaski-----	52	Clallam-----	49		
Charlotte-----	49	Pierce-----	49		
Franklin-----	48	Asotin-----	48		

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